

Television systems; Register of Country and Network Identification (CNI) and of Video Programming System (VPS) codes

European Broadcasting Union



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Reference

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Foreword

This Technical Report (TR) has been produced by the Joint Technical Committee (JTC) Broadcast of the European Broadcasting Union (EBU), Comité Européen de Normalisation ELECTrotechnique (CENELEC) and the European Telecommunications Standards Institute (ETSI).

The contents of the present document also exists as a living document on the EBU Web site <http://www.ebu.ch/>.

NOTE: The EBU/ETSI JTC was established in 1990 to co-ordinate the drafting of standards in the specific field of broadcasting and related fields. Since 1995 the JTC became a tripartite body by including in the Memorandum of Understanding also CENELEC, which is responsible for the standardization of radio and television receivers. The EBU is a professional association of broadcasting organizations whose work includes the co-ordination of its members' activities in the technical, legal, programme-making and programme-exchange domains. The EBU has active members in about 60 countries in the European broadcasting area; its headquarters is in Geneva.

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1 Scope

The present document contains the so-far allocated values of the Network Identification (NI) field of the Teletext Broadcast Service Data Packet (extension data packet of type 8/30 format 1), and the Country and Network Identification (CNI) fields of the Programme Delivery Control (PDC) data packets (extension data packets X/26 and 8/30 format 2).

The present document also contains identification codes related to Video Programme System (VPS) CNI, which apply to German, Austrian and Swiss TV programme providers. Services like Teletext, PDC or VPS that contain Network Identification data in their formats may be used (besides their primary purpose) also as a reference for a source display or for Automatic Tuning Systems (ATS).

The CNI codes are also used in Electronic Programme Guide transmissions.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.
- A non-specific reference to an ETS shall also be taken to refer to later versions published as an EN with the same number.

- [1] ETSI ETS 300 231: "Television systems; Specification of the domestic video Programme Delivery Control system (PDC)".
- [2] ETSI ETS 300 706: "Enhanced Teletext specification".
- [3] ETSI ETS 300 707: "Electronic Programme Guide (EPG); Protocol for a TV Guide using electronic data transmission".

3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

ATS	Automatic Tuning Systems
CNI	Country and Network Identification
hex	or hexadecimal: A number system with base 16. In written form, equivalents of the decimal numbers 10 to 15 are replaced by the uppercase letters A to F
LCI	Label Channel Identifier
LSB	Least Significant Bit
LUF	Label Update Flag
MSB	Most Significant Bit
NI	Network Identification
PCS	Programme Control Status
PDC	domestic video Programme/Delivery Control system
PIL	Programme Identification Label
PRF	Prepare to Record Flag
PTY	Programme Type
TV	TeleVision
VPS	Video Programme System (Transport of recording control commands via a dedicated television line)

4 List of codes

The values of Network Identification codes of either type which have been so-far allocated and registered with the EBU, or identified from off-air reception, are given in annex A.

4.1 Teletext 16-bit Network Identification (NI) codes

These 16-bit codes are uniquely designated for use by a single broadcast network, by definition, within the entire world.

They are found in the teletext transmission in the so-called Broadcast Service Data Packet 30, Magazine 8, format 1, as defined in ETS 300 706 [2]. The 16 bits occupy bytes 13 and 14 of the packet.

In this register the 16-bit codes are represented for convenience as 4-digit hexadecimal numbers. The number is read from left to right, the first transmitted bit being the Most Significant Bit (MSB) of the left-most hexadecimal number. Thus, for example, the code value AAE4 would be transmitted in the order 1010 1010 1110 0100. (This does not comply with other fields of packet 8/30 format 1).

In default of a unique 16-bit code having been allocated to a particular network, the network operator should transmit the value 0000.

4.2 PDC Network Identification (NI) codes

Programme Delivery Control (PDC) services provide Network Identification codes in the Country and Network Identification (CNI) parameter. Two versions of this are hidden from display in Teletext programme guide pages or extension data packet type 26s, and in programme labels of extension data packet type 8/30 format 2 or Video Programming System (VPS). These NI codes are uniquely designated for use by a single broadcast network or programme provider within a particular country (which is itself distinguished by a unique ITU country code), and it was generally left to the country to administer its own code allocations.

In earlier versions of this Register published by the EBU, the 11-bit coding used in extension packet 26 (Source Definition data group - 4 bits in Data Word A plus 7 bits in Data Word B) was in all cases a direct subset of the 16-bit coding used in extension data packet 8/30 format 2. With the growth of satellite and other cross-border transmission, it has become increasingly possible to receive broadcasts from geographically widely-separated countries which may have been allocated arbitrarily identical 11-bit PDC codes. The Register was therefore rationalized in a way compatible with all existing consumer products to avoid the ambiguity that duplicated codes could cause. Users should therefore note the separation in the table of the PDC CNI codes into two columns representing the extension data packet 8/30 format 2 and extension data packet 26 versions.

NOTE: The relationship between the PDC NI codes and that of the Broadcast Service Data Packet (8/30 format 1), is entirely arbitrary.

For the detailed bit coding of the PDC CNI codes see ETS 300 231 [1] subclauses 7.3.2.3 and 8.2.1., which are reproduced below for convenience.

Extract 1 of ETS 300 231 [1] from subclause 7.3.2.3

7.3.2.3 Coding of preselection data in extension packets X/26

c) Source Definition data group

This function is invoked when the mode description bits are set to "01000".

Data word A:

- 4 least-significant bits: **Country of Origin;**
- 2 most-significant bits: set to "1".

Data word B:

- 6 least-significant bits: **Programme Source**;
- Most-significant bit: when "0", indicates the first set of 64 programme sources, when "1", indicates the second set of 64 programme sources.

Extract 2 of ETS 300 231 [1] from subclause 8.2.1

8.2.1 Transport via Teletext (ITU-R system B)

This transport method is able to carry the parameters CNI, PIL, PCS, LCI and PTY. A 20-character version of PTL is also provided.

The transport of the recording-control commands is carried out by means of the broadcast service data packets 8/30 format 2.

As illustrated in table 7, this packet includes the prefix (5 bytes), the designation code (1 byte) and the initial Teletext page (6 bytes). The next 13 bytes, numbered 13 to 25, are each (8, 4) Hamming coded using the method defined for system B Teletext.

The four message bits of Byte 13 are used as follows:

Table 7

Byte 13	bit	0	LCI b1	Label Channel Identifier
		1	LCI b2	
		2	LUF	Label Update Flag
		3	PRF	Prepare to Record Flag

The message bits of bytes 14 to 25 are used as follows; the arrangement is similar to the label coding method used in the dedicated television line transport method:

Table 8

Byte 14	bit	0	PCS b1	Status of analogue sound	Byte 20	bit	0	PIL b15	Minute	
		1	PCS b2				1	PIL b16		
		2	MI	Mode identifier			2	PIL b17		
		3	-	Reserved but undefined			3	PIL b18		
Byte 15	bit	0	CNI b1	Country	Byte 21	bit	0	PIL b19	Country	
		1	CNI b2				1	PIL b20		
		2	CNI b3			[MSB]		2		CNI b5
		3	CNI b4			[LSB]		3		CNI b6
Byte 16	bit	0	CNI b9	Network (or programme provider)	Byte 22	bit	0	CNI b7	Network (or programme provider)	
		1	CNI b10			[MSB]		1		CNI b8
		2	PIL b1			[LSB]		2		CNI b11
		3	PIL b2					3		CNI b12
Byte 17	bit	0	PIL b3	Day	Byte 23	bit	0	CNI b13	Network (or programme provider)	
		1	PIL b4				1	CNI b14		
		2	PIL b5				2	CNI b15		
		3	PIL b6				3	CNI b16		
Byte 18	bit	0	PIL b7	Month	Byte 24	bit	0	PTY b1	Programme type	
		1	PIL b8				1	PTY b2		
		2	PIL b9				2	PTY b3		
		3	PIL b10				3	PTY b4		
Byte 19	bit	0	PIL b11	Hour	Byte 25	bit	0	PTY b5	Programme type	
		1	PIL b12				1	PTY b6		
		2	PIL b13				2	PTY b7		
		3	PIL b14				3	PTY b8		

The remainder of the packet (bytes 26-45) contains a 20-character version of PTL for display as a status message.

5 Coding examples

Packet X/26 Source Definition data group

Consider the X/26 code 32 07.

ETS 300 231 [1] subclause 7.3.2.3: c) (see clause 4) decrees that the X/26 Source Definition comprises two data words, A and B consisting of 6 bits and 7 bits respectively. Thus the above series of bits would be represented in binary as 11 0010 | 000 0111 (the two MSBs of Data Word A are always set to 1 in this Mode). For transmission, the Data Words A and B are placed Least Significant Bit (LSB) first, and interleaved with the parity bits (P_x) appropriate to Hamming (24,18). The resulting 24 bit Data Group becomes:

Data Word A									Mode				Data Word B										
↓ First bit transmitted									Last bit transmitted ↓														
P_1	P_2	0	P_3	1	0	0	P_4	1	1	0	0	0	1	0	P_5	1	1	1	0	0	0	0	P_6

Packet 8/30 format 2

Consider a packet 8/30 format 2 code with $C = 24$ and $NI = C7$. This is equivalent to the following sequence of 16 bits: 0010 0100 1100 0111.

From table 8, the transmission order of these CNI bits (ignoring the Hamming protection bits) is as follows:

bits	Byte 15	Byte 16	Byte 17	Byte 18	Byte 19	Byte 20	Byte 21	Byte 22	Byte 23
Σ	01 23	01 23	01 23	01 23	01 23	01 23	01 23	01 23	01 23
C	00 10						01	00	
NI		11						00	01 11
CNI bits	12 34	9 10					5 6	7 8 11 12	13 14 15 16

Equivalent Bit allocation for VPS:

Byte 5	Byte 11	-- --	-- --	Byte 13	Byte 14
01 23 45 67	01 23 45 67			01 23 45 67	01 23 45 67
reserved					

This order of transmission is necessary to align precisely with the bit ordering of VPS data lines.

Annex A (informative): Register of CNI codes for Teletext based systems

Table A.1: Register of Country and Network Identification (CNI) codes for Teletext based systems

Country	Network	8/30 format 1 NI 16 bits	8/ for C 8 bits	30 mat 2 NI 8 bits	X/ Data A 6 bits	26 word B 7 bits
Belgium	BRTN TV1	3201	16	01	36	03
Belgium	Ka2	3206	16	06	36	06
Belgium	RTBF 1	3203				
Belgium	RTBF 2	3204				
Belgium	TV2	3202	16	02	36	02
Belgium	VT4	0404	16	04	36	04
Belgium	VTM	3205	16	05	36	05
Croatia	HRT	0385				
Czech Republic	CT 1	4201	32	C1	3C	21
Czech Republic	CT 2	4202	32	C2	3C	22
Czech Republic	CT1 Regional	4231	32	F1	3C	25
Czech Republic	CT1 Regional, Brno	4211	32	D1	3B	01
Czech Republic	CT1 Regional, Ostravia	4221	32	E1	3B	02
Czech Republic	CT2 Regional	4232	32	F2	3B	03
Czech Republic	CT2 Regional, Brno	4212	32	D2	3B	04
Czech Republic	CT2 Regional, Ostravia	4222	32	E2	3B	05
Czech Republic	NOVA TV	4203	32	C3	3C	23
Denmark	DR1	7392	29	01	39	01
Denmark	DR2	49CF	29	03	39	03
Denmark	TV2	4502	29	02	39	02
Finland	OWL3	358F	26	0F	36	14
Finland	YLE1	3581	26	01	36	01
Finland	YLE2	3582	26	02	36	07
Finland	YLE future use	3583	26	03	36	08
Finland	YLE future use	3584	26	04	36	09
Finland	YLE future use	3585	26	05	36	0A
Finland	YLE future use	3586	26	06	36	0B
Finland	YLE future use	3587	26	07	36	0C
Finland	YLE future use	3588	26	08	36	0D
Finland	YLE future use	3589	26	09	36	0E
Finland	YLE future use	358A	26	0A	36	0F
Finland	YLE future use	358B	26	0B	36	10
Finland	YLE future use	358C	26	0C	36	11
Finland	YLE future use	358D	26	0D	36	12
Finland	YLE future use	358E	26	0E	36	13
France	AB1	33C1	2F	C1	3F	41
France	Aqui TV	3320	2F	20	3F	20
France	Arte / La Cinquième	330A	2F	0A	3F	0A
France	Canal J	33C2	2F	C2	3F	42
France	Canal Jimmy	33C3	2F	C3	3F	43
France	Canal+	33F4	2F	04	3F	04
France	Euronews	FE01	2F	E1	3F	61
France	Eurosport	F101	2F	E2	3F	62
France	France 2	33F2	2F	02	3F	02
France	France 3	33F3	2F	03	3F	03
France	La Chaîne Météo	33C5	2F	C5	3F	45
France	LCI	33C4	2F	C4	3F	44
France	M6	33F6	2F	06	3F	06
France	MCM	33C6	2F	C6	3F	46
France	Paris Première	33C8	2F	C8	3F	48
France	Planète	33C9	2F	C9	3F	49

Country	Network	8/30 format 1 NI 16 bits	8/ for C 8 bits	30 mat 2 NI 8 bits	X/ Data A 6 bits	26 word B 7 bits
France	RFO1	3311	2F	11	3F	11
France	RFO2	3312	2F	12	3F	12
France	Série Club	33CA	2F	CA	3F	4A
France	Télétoon	33CB	2F	CB	3F	4B
France	Téva	33CC	2F	CC	3F	4C
France	TF1	33F1	2F	01	3F	01
France	TLM	3321	2F	21	3F	21
France	TLT	3322	2F	22	3F	22
France	TMC Monte-Carlo	33C7	2F	C7	3F	47
France	TV5	F500	2F	E5	3F	65
Germany	Arte	490A				
Germany	QVC D Gmbh	5C49				
Germany	VOX Television	490C				
Germany	ZDF	4902				
Greece	ET future use	3004	21	04	31	04
Greece	ET future use	3005	21	05	31	05
Greece	ET future use	3006	21	06	31	06
Greece	ET future use	3007	21	07	31	07
Greece	ET future use	3008	21	08	31	08
Greece	ET future use	3009	21	09	31	09
Greece	ET future use	300A	21	0A	31	0A
Greece	ET future use	300B	21	0B	31	0B
Greece	ET future use	300C	21	0C	31	0C
Greece	ET future use	300D	21	0D	31	0D
Greece	ET future use	300E	21	0E	31	0E
Greece	ET future use	300F	21	0F	31	0F
Greece	ET-1	3001	21	01	31	01
Greece	ET-2	3002	21	02	31	02
Greece	ET-3	3003	21	03	31	03
Hungary	Duna Televizio	3636				
Hungary	MTV1	3601				
Hungary	MTV1 future use	3681				
Hungary	MTV1 regional, Budapest	3611				
Hungary	MTV1 regional, Debrecen	3651				
Hungary	MTV1 regional, Miskolc	3661				
Hungary	MTV1 regional, Pécs	3621				
Hungary	MTV1 regional, Szeged	3631				
Hungary	MTV1 regional, Szombathely	3641				
Hungary	MTV2	3602				
Hungary	MTV2 future use	3682				
Hungary	tv2	3622				
Hungary	tv2 future use	3620				
Iceland	Rikisutvarpid-Sjonvarp	3541				
Ireland	Network 2	3532	42	02	32	02
Ireland	RTE future use	3534	42	04	32	04
Ireland	RTE future use	3535	42	05	32	05
Ireland	RTE future use	3536	42	06	32	06
Ireland	RTE future use	3537	42	07	32	07
Ireland	RTE future use	3538	42	08	32	08
Ireland	RTE future use	3539	42	09	32	09
Ireland	RTE future use	353A	42	0A	32	0A
Ireland	RTE future use	353B	42	0B	32	0B
Ireland	RTE future use	353C	42	0C	32	0C
Ireland	RTE future use	353D	42	0D	32	0D
Ireland	RTE future use	353E	42	0E	32	0E
Ireland	RTE future use	353F	42	0F	32	0F
Ireland	RTE1	3531	42	01	32	01
Ireland	Teilifis na Gaeilge	3533	42	03	32	03
Ireland	TV3	3333				
Italy	Arte	390A				

Country	Network	8/30 format 1 NI 16 bits	8/ for C 8 bits	30 mat 2 NI 8 bits	X/ Data A 6 bits	26 word B 7 bits
Italy	Canale 5	FA05				
Italy	Italia 1	FA06				
Italy	RAI 1	3901				
Italy	RAI 2	3902				
Italy	RAI 3	3903				
Italy	Rete 4	FA04				
Italy	Rete A	3904				
Italy	RTV38	3938				
Italy	Tele+1	3997				
Italy	Tele+2	3998				
Italy	Tele+3	3999				
Italy	TMC	FA08				
Italy	TRS TV	3910				
Netherlands	Nederland 1	3101	48	01	38	01
Netherlands	Nederland 2	3102	48	02	38	02
Netherlands	Nederland 3	3103	48	03	38	03
Netherlands	NOS future use	3110				
Netherlands	NOS future use	3111				
Netherlands	NOS future use	3112				
Netherlands	NOS future use	3113				
Netherlands	NOS future use	3114				
Netherlands	NOS future use	3115				
Netherlands	NOS future use	3116				
Netherlands	NOS future use	3117				
Netherlands	NOS future use	3118				
Netherlands	NOS future use	3119				
Netherlands	NOS future use	311A				
Netherlands	NOS future use	311B				
Netherlands	NOS future use	311C				
Netherlands	NOS future use	311D				
Netherlands	NOS future use	311E				
Netherlands	NOS future use	311F				
Netherlands	NOS future use	3107	48	07	38	07
Netherlands	NOS future use	3108	48	08	38	08
Netherlands	NOS future use	3109	48	09	38	09
Netherlands	NOS future use	310A	48	0A	38	0A
Netherlands	NOS future use	310B	48	0B	38	0B
Netherlands	NOS future use	310C	48	0C	38	0C
Netherlands	NOS future use	310D	48	0D	38	0D
Netherlands	NOS future use	310E	48	0E	38	0E
Netherlands	NOS future use	310F	48	0F	38	0F
Netherlands	RTL 4	3104	48	04	38	04
Netherlands	RTL 5	3105	48	05	38	05
Netherlands	Veronica	3106	48	06	38	06
Norway	NRK1	4701				
Norway	NRK2	4703				
Norway	TV 2	4702				
Norway	TV Norge	4704				
Poland	TV Polonia	4810				
Poland	TVP1	4801				
Poland	TVP2	4802				
Portugal	Future use	3516				
Portugal	Future use	3517				
Portugal	Future use	3518				
Portugal	Future use	3519				
Portugal	RTP1	3510				
Portugal	RTP2	3511				
Portugal	RTPAF	3512				
Portugal	RTPAZ	3514				
Portugal	RTPI	3513				

Country	Network	8/30 format 1 NI 16 bits	8/ for C 8 bits	30 mat 2 NI 8 bits	X/ Data A 6 bits	26 word B 7 bits
Portugal	RTPM	3515				
San Marino	RTV	3781				
Slovakia	STV1	42A1	35	A1	35	21
Slovakia	STV2	42A2	35	A2	35	22
Slovakia	STV1 Regional, Košice	42A3	35	A3	35	23
Slovakia	STV2 Regional, Košice	42A4	35	A4	35	24
Slovakia	STV1 Regional, B. Bystrica	42A5	35	A5	35	25
Slovakia	STV2 Regional, B. Bystrica	42A6	35	A6	35	26
Slovakia	future use	42A7	35	A7	35	27
Slovakia	future use	42A8	35	A8	35	28
Slovakia	future use	42A9	35	A9	35	29
Slovakia	future use	42AA	35	AA	35	2A
Slovakia	future use	42AB	35	AB	35	2B
Slovakia	future use	42AC	35	AC	35	2C
Slovakia	future use	42AD	35	AD	35	2D
Slovakia	future use	42AE	35	AE	35	2E
Slovakia	future use	42AF	35	AF	35	2F
Spain	Arte	340A				
Spain	C33	CA33				
Spain	ETB 1	BA01				
Spain	ETB 2	3402				
Spain	TV3	CA03				
Spain	TVE1	3E00				
Spain	TVE2	E100				
Sweden	SVT 1	4601	4E	01	3E	01
Sweden	SVT 2	4602	4E	02	3E	02
Sweden	SVT future use	4603	4E	03	3E	03
Sweden	SVT future use	4604	4E	04	3E	04
Sweden	SVT future use	4605	4E	05	3E	05
Sweden	SVT future use	4606	4E	06	3E	06
Sweden	SVT future use	4607	4E	07	3E	07
Sweden	SVT future use	4608	4E	08	3E	08
Sweden	SVT future use	4609	4E	09	3E	09
Sweden	SVT future use	460A	4E	0A	3E	0A
Sweden	SVT future use	460B	4E	0B	3E	0B
Sweden	SVT future use	460C	4E	0C	3E	0C
Sweden	SVT future use	460D	4E	0D	3E	0D
Sweden	SVT future use	460E	4E	0E	3E	0E
Sweden	SVT future use	460F	4E	0F	3E	0F
Sweden	SVT Test Txmns	4600	4E	00	3E	00
Sweden	TV 4	4640	4E	40	3E	40
Sweden	TV 4 future use	4641	4E	41	3E	41
Sweden	TV 4 future use	4642	4E	42	3E	42
Sweden	TV 4 future use	4643	4E	43	3E	43
Sweden	TV 4 future use	4644	4E	44	3E	44
Sweden	TV 4 future use	4645	4E	45	3E	45
Sweden	TV 4 future use	4646	4E	46	3E	46
Sweden	TV 4 future use	4647	4E	47	3E	47
Sweden	TV 4 future use	4648	4E	48	3E	48
Sweden	TV 4 future use	4649	4E	49	3E	49
Sweden	TV 4 future use	464A	4E	4A	3E	4A
Sweden	TV 4 future use	464B	4E	4B	3E	4B
Sweden	TV 4 future use	464C	4E	4C	3E	4C
Sweden	TV 4 future use	464D	4E	4D	3E	4D
Sweden	TV 4 future use	464E	4E	4E	3E	4E
Sweden	TV 4 future use	464F	4E	4F	3E	4F
Switzerland	SAT ACCESS	410A	24	CA	34	4A
Switzerland	SF 1	4101	24	C1	34	41
Switzerland	SF 2	4107	24	C7	34	47
Switzerland	TSI 1	4103	24	C3	34	43

Country	Network	8/30 format 1 NI 16 bits	8/ for C 8 bits	30 mat 2 NI 8 bits	X/ Data A 6 bits	26 word B 7 bits
Switzerland	TSI 2	4109	24	C9	34	49
Switzerland	TSR 1	4102	24	C2	34	42
Switzerland	TSR 2	4108	24	C8	34	48
Turkey	ATV	900A				
Turkey	AVRASYA	9006	43	06	33	06
Turkey	BRAVO TV	900E				
Turkey	Cine 5	9008				
Turkey	EKO TV	900D				
Turkey	EURO D	900C				
Turkey	FUN TV	9010				
Turkey	GALAKSI TV	900F				
Turkey	KANAL D	900B				
Turkey	KANAL D future use	9012				
Turkey	KANAL D future use	9013				
Turkey	Show TV	9007				
Turkey	Super Sport	9009				
Turkey	TEMPO TV	9011				
Turkey	TGRT	9014				
Turkey	TRT-1	9001	43	01	33	01
Turkey	TRT-2	9002	43	02	33	02
Turkey	TRT-3	9003	43	03	33	03
Turkey	TRT-4	9004	43	04	33	04
Turkey	TRT-INT	9005	43	05	33	05
UK	ANGLIA TV	FB9C	2C	1C	3C	1C
UK	ANGLIA TV future use	FB9F	2C	1F	3C	1F
UK	ANGLIA TV future use	FB9D	5B	CD	3B	4D
UK	ANGLIA TV future use	FB9E	5B	CE	3B	4E
UK	BBC News 24	4469	2C	69	3C	69
UK	BBC Prime	4468	2C	68	3C	68
UK	BBC World	4457	2C	57	3C	57
UK	BBC Worldwide future 01	4458	2C	58	3C	58
UK	BBC Worldwide future 02	4459	2C	59	3C	59
UK	BBC Worldwide future 03	445A	2C	5A	3C	5A
UK	BBC Worldwide future 04	445B	2C	5B	3C	5B
UK	BBC Worldwide future 05	445C	2C	5C	3C	5C
UK	BBC Worldwide future 06	445D	2C	5D	3C	5D
UK	BBC Worldwide future 07	445E	2C	5E	3C	5E
UK	BBC Worldwide future 08	445F	2C	5F	3C	5F
UK	BBC Worldwide future 09	4460	2C	60	3C	60
UK	BBC Worldwide future 10	4461	2C	61	3C	61
UK	BBC Worldwide future 11	4462	2C	62	3C	62
UK	BBC Worldwide future 12	4463	2C	63	3C	63
UK	BBC Worldwide future 13	4464	2C	64	3C	64
UK	BBC Worldwide future 14	4465	2C	65	3C	65
UK	BBC Worldwide future 15	4466	2C	66	3C	66
UK	BBC Worldwide future 16	4467	2C	67	3C	67
UK	BBC1	447F	2C	7F	3C	7F
UK	BBC1 future 01	4443	2C	43	3C	43
UK	BBC1 future 02	4445	2C	45	3C	45
UK	BBC1 future 03	4479	2C	79	3C	79
UK	BBC1 future 04	4447	2C	47	3C	47
UK	BBC1 future 05	4477	2C	77	3C	77
UK	BBC1 future 06	4449	2C	49	3C	49
UK	BBC1 future 07	4475	2C	75	3C	75
UK	BBC1 future 08	444B	2C	4B	3C	4B
UK	BBC1 future 09	4473	2C	73	3C	73
UK	BBC1 future 10	444D	2C	4D	3C	4D
UK	BBC1 future 11	4471	2C	71	3C	71
UK	BBC1 future 12	444F	2C	4F	3C	4F
UK	BBC1 future 13	446F	2C	6F	3C	6F

Country	Network	8/30 format 1 NI 16 bits	8/ for C 8 bits	30 mat 2 NI 8 bits	X/ Data A 6 bits	26 word B 7 bits
UK	BBC1 future 14	4451	2C	51	3C	51
UK	BBC1 future 15	446D	2C	6D	3C	6D
UK	BBC1 future 16	4453	2C	53	3C	53
UK	BBC1 future 17	446B	2C	6B	3C	6B
UK	BBC1 future 18	4455	2C	55	3C	55
UK	BBC1 NI	4441	2C	41	3C	41
UK	BBC1 Scotland	447B	2C	7B	3C	7B
UK	BBC1 Wales	447D	2C	7D	3C	7D
UK	BBC2	4440	2C	40	3C	40
UK	BBC2 future 01	447C	2C	7C	3C	7C
UK	BBC2 future 02	447A	2C	7A	3C	7A
UK	BBC2 future 03	4446	2C	46	3C	46
UK	BBC2 future 04	4478	2C	78	3C	78
UK	BBC2 future 05	4448	2C	48	3C	48
UK	BBC2 future 06	4476	2C	76	3C	76
UK	BBC2 future 07	444A	2C	4A	3C	4A
UK	BBC2 future 08	4474	2C	74	3C	74
UK	BBC2 future 09	444C	2C	4C	3C	4C
UK	BBC2 future 10	4472	2C	72	3C	72
UK	BBC2 future 11	444E	2C	4E	3C	4E
UK	BBC2 future 12	4470	2C	70	3C	70
UK	BBC2 future 13	4450	2C	50	3C	50
UK	BBC2 future 14	446E	2C	6E	3C	6E
UK	BBC2 future 15	4452	2C	52	3C	52
UK	BBC2 future 16	446C	2C	6C	3C	6C
UK	BBC2 future 17	4454	2C	54	3C	54
UK	BBC2 future 18	446A	2C	6A	3C	6A
UK	BBC2 future 19	4456	2C	56	3C	56
UK	BBC2 NI	447E	2C	7E	3C	7E
UK	BBC2 Scotland	4444	2C	44	3C	44
UK	BBC2 Wales	4442	2C	42	3C	42
UK	BORDER TV	B7F7	2C	27	3C	27
UK	BRAVO	4405	5B	EF	3B	6F
UK	CARLTON SEL. future use	82E2	2C	06	3C	06
UK	CARLTON SELECT	82E1	2C	05	3C	05
UK	CARLTON TV	82DD	2C	1D	3C	1D
UK	CARLTON TV future use	82DE	5B	CF	3B	4F
UK	CARLTON TV future use	82DF	5B	D0	3B	50
UK	CARLTON TV future use	82E0	5B	D1	3B	51
UK	CENTRAL TV	2F27	2C	37	3C	37
UK	CENTRAL TV future use	5699	2C	16	3C	16
UK	CHANNEL 4	FCD1	2C	11	3C	11
UK	CHANNEL 5 (1)	9602	2C	02	3C	02
UK	CHANNEL 5 (2)	1609	2C	09	3C	09
UK	CHANNEL 5 (3)	28EB	2C	2B	3C	2B
UK	CHANNEL 5 (4)	C47B	2C	3B	3C	3B
UK	CHANNEL TV	FCE4	2C	24	3C	24
UK	CHILDREN'S CHANNEL	4404	5B	F0	3B	70
UK	CNNI	01F2	5B	F1	3B	71
UK	DISCOVERY	4407	5B	F2	3B	72
UK	DISNEY CHANNEL UK	44D1	5B	CC	3B	4C
UK	FAMILY CHANNEL	4408	5B	F3	3B	73
UK	FilmFour	C4F4	42	F4	32	74
UK	GMTV	ADDC	5B	D2	3B	52
UK	GMTV future use	ADDD	5B	D3	3B	53
UK	GMTV future use	ADDE	5B	D4	3B	54
UK	GMTV future use	ADDF	5B	D5	3B	55
UK	GMTV future use	ADE0	5B	D6	3B	56
UK	GMTV future use	ADE1	5B	D7	3B	57
UK	GRAMPIAN TV	F33A	2C	3A	3C	3A

Country	Network	8/30 format 1 NI 16 bits	8/ for C 8 bits	30 mat 2 NI 8 bits	X/ Data A 6 bits	26 word B 7 bits
UK	GRANADA PLUS	4D5A	5B	F4	3B	74
UK	GRANADA Timeshare	4D5B	5B	F5	3B	75
UK	GRANADA TV	ADD8	2C	18	3C	18
UK	GRANADA TV future use	ADD9	5B	D8	3B	58
UK	HISTORY Ch.	FCF4	5B	F6	3B	76
UK	HTV	5AAF	2C	3F	3C	3F
UK	HTV future use	F258	2C	38	3C	38
UK	ITV NETWORK	C8DE	2C	1E	3C	1E
UK	LEARNING CHANNEL	4406	5B	F7	3B	77
UK	Live TV	4409	5B	F8	3B	78
UK	LWT	884B	2C	0B	3C	0B
UK	LWT future use	884C	5B	D9	3B	59
UK	LWT future use	884D	5B	DA	3B	5A
UK	LWT future use	884F	5B	DB	3B	5B
UK	LWT future use	8850	5B	DC	3B	5C
UK	LWT future use	8851	5B	DD	3B	5D
UK	LWT future use	8852	5B	DE	3B	5E
UK	LWT future use	8853	5B	DF	3B	5F
UK	LWT future use	8854	5B	E0	3B	60
UK	MERIDIAN	10E4	2C	34	3C	34
UK	MERIDIAN future use	DD50	2C	10	3C	10
UK	MERIDIAN future use	DD51	5B	E1	3B	61
UK	MERIDIAN future use	DD52	5B	E2	3B	62
UK	MERIDIAN future use	DD53	5B	E3	3B	63
UK	MERIDIAN future use	DD54	5B	E4	3B	64
UK	MERIDIAN future use	DD55	5B	E5	3B	65
UK	MOVIE CHANNEL	FCFB	2C	1B	3C	1B
UK	MTV	4D54	2C	14	3C	14
UK	MTV future use	4D55	2C	33	3C	33
UK	MTV future use	4D56	2C	36	3C	36
UK	NBC Europe	8E71	2C	31	3C	31
UK	NBC Europe future use	5343	2C	03	3C	03
UK	NBC Europe future use	8E79	2C	23	3C	23
UK	NBC Europe future use	8E78	2C	26	3C	26
UK	NBC Europe future use	8E77	2C	28	3C	28
UK	NBC Europe future use	8E76	2C	29	3C	29
UK	NBC Europe future use	8E75	2C	2A	3C	2A
UK	NBC Europe future use	8E74	2C	2E	3C	2E
UK	NBC Europe future use	8E73	2C	32	3C	32
UK	NBC Europe future use	8E72	2C	35	3C	35
UK	Nickelodeon UK	A460				
UK	Paramount Comedy Channel UK	A465				
UK	QVC future use	5C33				
UK	QVC future use	5C34				
UK	QVC future use	5C39				
UK	QVC UK	5C44				
UK	RACING Ch.	FCF3	2C	13	3C	13
UK	S4C	B4C7	2C	07	3C	07
UK	SCI FI CHANNEL	FCF5	2C	15	3C	15
UK	SCOTTISH TV	F9D2	2C	12	3C	12
UK	SKY GOLD	FCF9	2C	19	3C	19
UK	SKY MOVIES PLUS	FCFC	2C	0C	3C	0C
UK	SKY NEWS	FCFD	2C	0D	3C	0D
UK	SKY ONE	FCFE	2C	0E	3C	0E
UK	SKY SOAPS	FCF7	2C	17	3C	17
UK	SKY SPORTS	FCFA	2C	1A	3C	1A
UK	SKY SPORTS 2	FCF8	2C	08	3C	08
UK	SKY TRAVEL	FCF6	5B	F9	3B	79
UK	SKY TWO	FCFF	2C	0F	3C	0F

Country	Network	8/30 format 1 NI 16 bits	8/ for C 8 bits	30 mat 2 NI 8 bits	X/ Data A 6 bits	26 word B 7 bits
UK	SSVC	37E5	2C	25	3C	25
UK	TNT / Cartoon Network	44C1				
UK	TYNE TEES TV	A82C	2C	2C	3C	2C
UK	TYNE TEES TV future use	A82D	5B	E6	3B	66
UK	TYNE TEES TV future use	A82E	5B	E7	3B	67
UK	UK GOLD	4401	5B	FA	3B	7A
UK	UK GOLD future use	4411	5B	FB	3B	7B
UK	UK GOLD future use	4412	5B	FC	3B	7C
UK	UK GOLD future use	4413	5B	FD	3B	7D
UK	UK GOLD future use	4414	5B	FE	3B	7E
UK	UK GOLD future use	4415	5B	FF	3B	7F
UK	UK LIVING	4402	2C	01	3C	01
UK	ULSTER TV	833B	2C	3D	3C	3D
UK	VH-1	4D58	2C	20	3C	20
UK	VH-1 (German language)	4D59	2C	21	3C	21
UK	VH-1 future use	4D57	2C	22	3C	22
UK	WESTCOUNTRY future use	25D1	5B	E8	3B	68
UK	WESTCOUNTRY future use	25D2	5B	E9	3B	69
UK	WESTCOUNTRY TV	25D0	2C	30	3C	30
UK	WIRE TV	4403	2C	3C	3C	3C
UK	YORKSHIRE TV	FA2C	2C	2D	3C	2D
UK	YORKSHIRE TV future use	FA2D	5B	EA	3B	6A
UK	YORKSHIRE TV future use	FA2E	5B	EB	3B	6B
UK	YORKSHIRE TV future use	FA2F	5B	EC	3B	6C
UK	YORKSHIRE TV future use	FA30	5B	ED	3B	6D
UK	YORKSHIRE TV future use	FA31	5B	EE	3B	6E

Table of Spoiled or forbidden codes		8/30 format 1	8/30 format 2		X/26 Data word		
		NI 16 bits	C 8 bits	NI 8 bits	A 6 bits	B 7 bits	
These codes will never be allocated		0000	-	-	-	-	
		-	00	00	-	-	
		-	-	-	30	00	
	These codes have been previously allocated and may still be being used, but it is the intention of the broadcaster to cease using them.		FA6F	2C	2F	3C	2F
			A2FE	2C	3E	3C	3E
			1984	2C	04	3C	04
			200A	2C	0A	3C	0A
			3F39	2C	39	3C	39
	Therefore they are not available for future use.		4104	24	C6	34	44
			4105	-	-	34	45
			4106	-	-	34	46
			8700	-	-	-	-
		7C00	-	-	-	-	

Annex B (informative): Register of VPS CNI codes

B.1 Network Identification (NI) for on screen display and/or Automatic Tuning Systems (ATS)

Services like Teletext, PDC or VPS that contain Network Identification data in their formats may be used - besides their primary purpose - also as a reference for a source display or for ATS.

Several programme providers (especially private ones, e.g. in Germany) "abuse" the programme delivery system VPS for the only purpose to make their channels identifiable by an ATS. In case of VPS, this is done by delivering permanently and invariably together with their CNI the "Timer Control code" (see ETS 300 231 [1], figure 9, page 37) instead of Programme Identification Labels (PIL).

If a corresponding Teletext mode is used anywhere in networks without a "real" Teletext service, such a network could be made identifiable for ATS also by delivering simply one invariable Teletext line only, that carries as useful information not more than a Network Identification code (16 bits Packet 8/30 f1), e.g. out of a Programmable Read-Only Memory (PROM) in an Insertion Test-line Generator.

When VPS was defined some ten years ago the on screen display of the programme provider (or the network) was already envisaged. For this purpose it was decided (and supported both by the broadcasters and the manufacturers) to include in the list of VPS identification codes additionally both an 8-letter as well as a 16-letter abbreviation for the display of longer names of programme providers or networks. This way the provider or operator avoids, that different and ambiguous "texts" might be invented by different industry companies, if they cannot display the original name in full length. It may be disputable, whether with the display technologies of today (not only on screen) an 8-letter abbreviation for instance still is required. Industry members of a suitable working group might answer this question. Should this requirement still exist, one could envisage to include in a future edition of the present document such an abbreviations option also for the Packet 8/30 Format 1 codes, possibly for longer names only.

NOTE 1: In VPS the parameter CNI was planned to define not a network but a programme provider, because in Germany some networks are sequentially used for different programmes. With the appearance of ATS a problem arose and had to be solved, namely:

the two nation-wide separate networks of ARD on the one hand and of ZDF on the other hand are switched together on weekday mornings to provide simultaneously a specific programme. This is announced in the printed media (and in Teletext previews) as "Gemeinsames Vormittagsprogramm" and has, according to table B.1, a CNI = DC3_{hex} different from that of ARD (DC1_{hex}) and of ZDF (DC2_{hex}). To enable ATS to conclude whether a channel delivering in the moment the code CNI = DC3_{hex} will be during the regular time slots an ARD or a ZDF channel, additionally bit 3 in byte 5 of the dedicated TV line (16) has been assigned to differ between the two networks (see note in table B.1, row 3).

NOTE 2: Apart from its application for ATS this kind of identification codes (Packet 8/30 Format 1 and VPS) will also be used in the future as an indication of the selected channel in systems measuring the viewing rate in "panel households". In Germany such a system is just being developed.

B.2 Register of VPS CNI codes

This clause gives a register of identification codes related to VPS, which apply to German, Austrian and Swiss TV programme providers.

Table B.1 gives the VPS CNI Codes (hex) used in Germany, Switzerland and Austria.

Table B.2 gives the 8- and 16-letter abbreviations of programme providers in Germany, Switzerland and Austria.

Figure B.1 shows the CNI code format details for VPS.

NOTE: The network codes in this table are also used in the Application Information structure of electronic programme guide broadcast according to ETS 300 707 [3]. In this application the CNI field is 16 bits wide and the codes listed in this table should be extended with a leading "0". Thus in the EPG application, the VPS code "DC1" is represented as "0DC1".

Table B.1: VPS CNI Codes (hex) used in Germany, Switzerland and Austria

Number	Network	VPS CNI code
GERMANY Code range I (DC1 - DFE): ARD and ZDF programme providers		
		(hex)
1	ARD bundesweit, Erstes Deutsches Fernsehen	DC1
2	ZDF bundesweit, Zweites Deutsches Fernsehen	DC2
3	ARD/ZDF / Gemeinsames Vormittagsprogramm NOTE: As this code is used for a time in two networks a distinction for automatic tuning systems is given in data line 16: bit 3 of byte 5 = 1 for the ARD network / = 0 for the ZDF network	DC3
4	ARD-TV-Sternpunkt	DC4
5	ARD-TV-Sternpunkt-Fehlersieb, interne Störfallkennung	DC5
6	not to be used until 2003	DC6
7	Satelliten-Programm "3sat"(ARD/ZDF/ORF/SRG common programme)	DC7
8	Phoenix ARD/ZDF	DC8
9	Kinderkanal ARD/ZDF	DC9
10	BR-1 / Regionalprogramm	DCA
11	BR-3 / landesweit (split at times)	DCB
12	BR-3 / Süd	DCC
13	BR-3 / Nord	DCD
14	HR-1 / Regionalprogramm	DCE
15	Hessen 3 / landesweit	DCF
16	NDR-1 / Landesprogramm dreiländerweit (split at times)	DDO
17	NDR-1 / Landesprogramm Hamburg	DD1
18	NDR-1 / Landesprogramm Niedersachsen	DD2
19	NDR-1 / Landesprogramm Schleswig-Holstein	DD3
20	Nord-3 (common 3 Programme NDR, SFB, RB, split at times)	DD4
21	NDR-3 / dreiländerweit	DD5
22	NDR-3 / Hamburg	DD6
23	NDR-3 / Niedersachsen	DD7
24	NDR-3 / Schleswig-Holstein	DD8
25	RB-1 / Regionalprogramm	DD9
26	RB-3 (separation from Nord 3)	DDA
27	SFB-1 / Regionalprogramm	DDB
28	SFB-3 (separation from Nord 3)	DDC
29	SDR-1 + SWF-1 / Regionalprogramm Baden-Württemberg	DDD
30	SWF-1 / Regionalprogramm Rheinland-Pfalz	DDE
31	SR-1 / Regionalprogramm	DDF
32	SW 3 (Südwest 3), Verbund 3 Programme SDR, SR, SWF	DE0
33	SW 3 / Regionalprogramm Baden-Württemberg	DE1
34	SW 3 / Regionalprogramm Saarland	DE2
35	SW 3 / Regionalprogramm Baden-Württemberg Süd	DE3
36	SW 3 / Regionalprogramm Rheinland-Pfalz	DE4
37	WDR-1 / Regionalprogramm	DE5
38	WDR-3 / landesweit (split at times)	DE6
39	WDR-3 / Bielefeld	DE7
40	WDR-3 / Dortmund	DE8
41	WDR-3 / Düsseldorf	DE9
42	WDR-3 / Köln	DEA
43	WDR-3 / Münster	DEB
44	SDR -1 / Regionalprogramm	DEC
45	SW 3 / Regionalprogramm Baden-Württemberg Nord	DED
46	SW 3 / Regionalprogramm Mannheim	DEE
47	SDR-1 + SWF-1 / Regionalprogramm Baden-Württemb und Rhld-Pfalz	DEF
48	SWF-1 / Regionalprogramm	DF0
49	NDR-1 / Landesprogramm Mecklenburg-Vorpommern	DF1
50	NDR-3 / Mecklenburg-Vorpommern	DF2
51	MDR-1 / Landesprogramm Sachsen	DF3
52	MDR-3 / Sachsen	DF4
53	MDR / Dresden	DF5
54	MDR-1 / Landesprogramm Sachsen-Anhalt	DF6
55	Lokal-Programm WDR-Dortmund	DF7
56	MDR-3 / Sachsen-Anhalt	DF8

Number	Network	VPS CNI code
57	MDR / Magdeburg	DF9
58	MDR-1 / Landesprogramm Thüringen	DFA
59	MDR-3 / Thüringen	DFB
60	MDR / Erfurt	DFC
61	MDR-1 / Regionalprogramm	DFD
62	MDR-3 / landesweit	DFE
Code range II (D81 - DBF): ARD, ZDF and private programme providers		(hex)
1	ORB-1 / Regionalprogramm	D81
2	ORB-3 / landesweit	D82
3	not to be used until 2001	D83
4	not to be used until 2001	D84
5	Arte	D85
6	not to be used until 2001	D86
7	1A-Fernsehen	D87
8	VIVA	D88
9	VIVA 2	D89
10	Super RTL	D8A
11	RTL Club	D8B
12	n-tv	D8C
13	Deutsches Sportfernsehen	D8D
14	VOX Fernsehen	D8E
15	RTL 2	D8F
16	RTL 2 / regional	D90
17	Eurosport	D91
18	Kabel 1	D92
19	not to be used until 2003	D93
20	PRO 7	D94
21	SAT 1 / Brandenburg	D95
22	SAT 1 / Thüringen	D96
23	SAT 1 / Sachsen	D97
24	SAT 1 / Mecklenburg-Vorpommern	D98
25	SAT 1 / Sachsen-Anhalt	D99
26	RTL / Regional	D9A
27	RTL / Schleswig-Holstein	D9B
28	RTL / Hamburg	D9C
29	RTL / Berlin	D9D
30	RTL / Niedersachsen	D9E
31	RTL / Bremen	D9F
32	RTL / Nordrhein-Westfalen	DA0
33	RTL / Hessen	DA1
34	RTL / Rheinland-Pfalz	DA2
35	RTL / Baden-Württemberg	DA3
36	RTL / Bayern	DA4
37	RTL / Saarland	DA5
38	RTL / Sachsen-Anhalt	DA6
39	RTL / Mecklenburg-Vorpommern	DA7
40	RTL / Sachsen	DA8
41	RTL / Thüringen	DA9
42	RTL / Brandenburg	DAA
43	RTL Plus	DAB
44	Premiere	DAC
45	SAT 1 / Regional	DAD
46	SAT 1 / Schleswig-Holstein	DAE
47	SAT 1 / Hamburg	DAF
48	SAT 1 / Berlin	DB0
49	SAT 1 Niedersachsen	DB1
50	SAT 1 / Bremen	DB2
51	SAT 1 Nordrhein-Westfalen	DB3
52	SAT 1 / Hessen	DB4
53	SAT 1 / Rheinland-Pfalz	DB5
54	SAT 1 / Baden-Württemberg	DB6

Number	Network	VPS CNI code
55	SAT 1 / Bayern	DB7
56	SAT 1 / Saarland	DB8
57	SAT 1	DB9
58	TM3 Fernsehen	DBA
59	Deutsche Welle Fernsehen Berlin	DBB
60	not to be used until 2002	DBC
61	Berlin-Offener Kanal	DBD
62	Berlin-Mix-Channel II	DBE
63	Berlin-Mix-Channel 1	DBF
Code range III (D41 - D7F): ARD, ZDF and private programme providers		(hex)
1	FESTIVAL	D41
2	MUXX	D42
3	EXTRA	D43
60	ONYX-TV	D7C
61	QVC-Teleshopping	D7D
62	Nickelodeon	D7E
63	Home order Television	D7F
SWITZERLAND Code range I (4C1 - 4FE)		
1	SRG, Schweizer Fernsehen DRS, SF 1	4C1
2	SSR, Télévision Suisse Romande, TSR 1	4C2
3	SSR, Televisione svizzera di lingua italiana, TSI 1	4C3
4	not to be used until 2004	4C4
5	not to be used until 2004	4C5
6	not to be used until 2007	4C6
7	SRG, Schweizer Fernsehen DRS, SF 2	4C7
8	SSR, Télévision Suisse Romande, TSR 2	4C8
9	SSR, Televisione svizzera di lingua italiana, TSI 2	4C9
10	SRG SSR Sat Access	4CA
Code range II (481 - 4BF)		
1	TeleZüri	481
2	Teleclub Abonnements-Fernsehen	482
3	-	483
4	TeleBern	484
5	Tele M1	485
6	Star TV	486
7	Pro 7	487
8	TopTV	488
9		
10		
AUSTRIA Code range I (AC1 - AFE)		
1	ORF - FS 1	AC1
2	ORF - FS 2	AC2
3	ORF - FS 3	AC3
11	ORF- FS 2 / Lokalprogramm Burgenland	ACB
12	ORF- FS 2 / Lokalprogramm Kärnten	ACC
13	ORF- FS 2 / Lokalprogramm Niederösterreich	ACD
14	ORF- FS 2 / Lokalprogramm Oberösterreich	ACE
15	ORF- FS 2 / Lokalprogramm Salzburg	ACF
16	ORF- FS 2 / Lokalprogramm Steiermark	AD0
17	ORF- FS 2 / Lokalprogramm Tirol	AD1
18	ORF- FS 2 / Lokalprogramm Vorarlberg	AD2
19	ORF- FS 2 / Lokalprogramm Wien	AD3

Table B.2: 8- and 16-letter abbreviations of programme providers in Germany, Switzerland and Austria according to VPS CNI Codes

GERMANY Code range I (DC1 - DFE): ARD and ZDF programme providers

N°	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
1	A	R	D						A	R	D													
2	Z	D	F						Z	D	F													
3	A	R	D	/	Z	D	F		A	R	D	/	Z	D	F	-	V	O	R	M	.	P	R	G
4	A	R	D	*					A	R	D	-	T	V	-	S	T	E	R	N	*			
5	A	R	D	*	*				A	R	D	-	T	V	-	S	T	E	R	N	*	*		
6	not to be used until 2003																							
7	3	S	A	T					3	S	A	T												
8	P	H	O	E	N	I	X		P	H	O	E	N	I	X		A	R	D	/	Z	D	F	
9	K	I	K	A					K	I	K	A		E	R	F	U	R	T					
10	B	R	-	1		R	E	G	B	R	-	1		R	E	G	I	O	N	A	L			
11	B	R	-	3					B	R	-	3		L	A	N	D	E	S	W	E	I	T	
12	B	R	-	3	S	U	E	D	B	R	-	3		S	U	E	D	K	E	T	T	E		
13	B	R	-	3	N	O	R	D	B	R	-	3		N	O	R	D	K	E	T	T	E		
14	H	R	-	1		R	E	G	H	R	-	3		R	E	G	I	O	N	A	L			
15	H	E	S	S	E	N		3	H	E	S	S	E	N		3								
16	N	D	R	-	1				N	D	R	-	1		R	E	G	I	O	N	A	L		
17	N	D	R	-	1	H	H		N	D	R	-	1		H	A	M	B	U	R	G			
18	N	D	R	-	1	N	S		N	D	R	-	1		N	D	.	S	A	C	H	S	E	N
19	N	D	R	-	1	S	H		N	D	R	-	1		S	C	H	L	-	H	O	L	S	T
20	N	3							N	3	-	N	D	R	/	R	B	/	S	F	B			
21	N	D	R	-	3				N	D	R	-	3		R	E	G	I	O	N	A	L		
22	N	D	R	-	3	-	H	H	N	D	R	-	3		H	A	M	B	U	R	G			
23	N	D	R	-	3	-	N	S	N	D	R	-	3		N	D	.	S	A	C	H	S	E	N
24	N	D	R	-	3	-	S	H	N	D	R	-	3		S	C	H	L	-	H	O	L	S	T
25	R	B	-	1		R	E	G	R	B	-	1		R	E	G	I	O	N	A	L			
26	R	B	-	3					R	A	D	I	O		B	R	E	M	E	N	3			
27	S	F	B	1		R	E	G	S	F	B	-	1		R	E	G	I	O	N	A	L		
28	S	F	B	-	3				S	F	B	-	3											
29	S	D	R	S	W	F	B	W	S	D	R	1	+	S	W	F	1	-	R	E	G	.	B	W
30	S	W	F	1	R	H	P	F	S	W	F	-	1		R	H	L	D	.	P	F	A	L	Z
31	S	R	1	-	S	A	A	R	S	R	1	-	S	A	A	R	L	A	N	D				
32	S	W	3						S	U	E	D	W	E	S	T	-	3						
33	S	W	3		B	W			S	W	3		B	A	D	-	W	U	E	R	T	T	.	
34	S	W	3		S	A	A	R	S	W	3		S	A	A	R	L	A	N	D				
35	S	W	3		B	W	S		S	W	3		B	A	D	-	W	U	E	R	T	T	.	
36	S	W	3		R	H	P	F	S	W	3		R	H	L	D	.	P	F	A	L	Z		
37	W	D	R	-	1	R	E	G	W	D	R	-	1		R	E	G	I	O	N	A	L		
38	W	D	R	-	3				W	D	R	-	3		L	A	N	D	E	S	W	E	I	T
39	W	D	R	-	3		B	I	W	D	R	-	3		B	I	E	L	E	F	E	L	D	
40	W	D	R	-	3		D	O	W	D	R	-	3		D	O	R	T	M	U	N	D		
41	W	D	R	-	3		D		W	D	R	-	3		D	U	S	S	E	L	D	O	R	F
42	W	D	R	-	3		K		W	D	R	-	3		K	O	E	L	N					
43	W	D	R	-	3		M	S	W	D	R	-	3		M	U	E	N	S	T	E	R		
44	S	D	R	1		R	E	G	S	D	R	1		R	E	G	I	O	N	A	L			
45	S	W	3		B	W	N		S	W	3		B	A	D	-	W	U	E	R	T	T	.	
46	S	W	3		M	A			S	W	3		M	A	N	N	H	E	I	M				
47	S	D	R	1	S	W	F	1	S	D	R	1	+	S	W	F	1	-	R	E	G			
48	S	W	F	1		R	E	G	S	W	F	-	1		R	E	G	I	O	N	A	L		
49	N	D	R	-	1	-	M	V	N	D	R	-	1		M	E	C	K	B	G	-	V	P	
50	N	D	R	-	3	-	M	V	N	D	R	-	3		M	E	C	K	B	G	-	V	P	
51	M	D	R	1	-	S	A	C	M	D	R	-	1	-	S	A	C	H	S	E	N			
52	M	D	R	3	-	S	A	C	M	D	R	-	3	-	S	A	C	H	S	E	N			
53	M	D	R	-	D	R	S	D	M	D	R	-	D	R	E	S	D	E	N					
54	M	D	R	1	-	S	-	A	M	D	R	1	S	A	C	H	S	-	A	N	H	A	L	T
55	W	D	R	L	O	K	A	L	W	D	R	-	L	O	K	A	L	-	F	S	-	-	D	O
56	M	D	R	3	-	S	-	A	M	D	R	3	S	A	C	H	S	-	A	N	H	A	L	T
57	M	D	R	-	M	D	B	G	M	D	R	-	M	A	G	D	E	B	U	R	G			
58	M	D	R	1	-	T	H	R	M	D	R	-	1	-	T	H	U	E	R	I	N	G	E	N

N°	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
59	M	D	R	3	-	T	H	R	M	D	R	-	3	-	T	H	U	E	R	I	N	G	E	N
60	M	D	R	-	E	R	F	T	M	D	R	-	E	R	F	U	R	T						
61	M	D	R	-	1				M	D	R	-	1		R	E	G	I	O	N	A	L		
62	M	D	R	-	3				M	D	R	-	3		L	A	N	D	E	S	W	E	I	T

GERMANY Code range II (D81 - DBF): ARD, ZDF and private programme providers

N°	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
1	O	R	B	-	1				O	R	B	-	1		R	E	G	I	O	N	A	L		
2	O	R	B	-	3				O	R	B	-	3		L	A	N	D	E	S	W	E	I	T
3	not to be used until 2001																							
4	not to be used until 2001																							
5	A	R	T	E					A	R	T	E												
6																								
7	1	A	-	T	V				1	A	-	F	E	R	N	S	E	H	E	N				
8	V	I	V	A					V	I	V	A												
9	V	I	V	A		2			V	I	V	A		2										
10	S	U	P	E	R	R	T	L			S	U	P	E	R				R	T	L			
11	R	T	L		C	L	U	B	R	T	L		C	L	U	B								
12	N	-	T	V					N	-	T	V		N	A	C	H	R	I	C	H	T	E	N
13	D	S	F						S	P	O	R	T	F	E	R	N	S	E	H	E	N		
14	V	O	X						V	O	X		F	E	R	N	S	E	H	E	N			
15	R	T	L	2					R	T	L	2												
16	R	T	L	2		R	E	G	R	T	L	2		R	E	G	I	O	N	A	L			
17	E	U	R	O	S	P	O	R	E	U	R	O	S	P	O	R	T							
18	K	A	B	E	L	K	A	N	K	A	B	E	L	K	A	N	A	L						
19	not to be used until 2003																							
20	P	R	O		7				P	R	O		7											
21	S	A	T	1		B	B	G	S	A	T	1		B	R	A	N	D	E	N	B	U	R	G
22	S	A	T	1	T	H	U	E	S	A	T	1		T	H	U	E	R	I	N	G	E	N	
23	S	A	T	1		S	A	C	S	A	T	1		S	A	C	H	S	E	N				
24	S	A	T	1		M	V		S	A	T	1		M	E	C	K	B	G	-	V	O	R	P
25	S	A	T	1		S	A	N	S	A	T	1		S	A	C	H	S	E	N	-	A	N	H
26	R	T	L		R	E	G		R	T	L		R	E	G	I	O	N	A	L				
27	R	T	L		S	H			R	T	L		S	C	H	L	E	S	-	H	O	L	S	T
28	R	T	L		H	H			R	T	L		H	A	M	B	U	R	G					
29	R	T	L		B				R	T	L		B	E	R	L	I	N						
30	R	T	L		N	D	S		R	T	L		N	D	.	S	A	C	H	S	E	N		
31	R	T	L		H	B			R	T	L		B	R	E	M	E	N						
32	R	T	L		N	R	W		R	T	L		N	.	R	.	W	E	S	T	F			
33	R	T	L		H	E	S		R	T	L		H	E	S	S	E	N						
34	R	T	L		R	H	P	F	R	T	L		R	H	L	D	.	P	F	A	L	Z		
35	R	T	L		B	W			R	T	L		B	A	D	-	W	U	E	R	T	T	.	
36	R	T	L		B	A	Y		R	T	L		B	A	Y	E	R	N						
37	R	T	L		S	A	A	R	R	T	L		S	A	A	R	L	A	N	D				
38	R	T	L		S	A	N		R	T	L		S	A	C	H	S	E	N	-	A	N	H	A
39	R	T	L		M	V			R	T	L		M	E	C	K	B	G	-	V	O	R	P	O
40	R	T	L		S	A	C		R	T	L		S	A	C	H	S	E	N					
41	R	T	L		T	H	U	E	R	T	L		T	H	U	E	R	I	N	G	E	N		
42	R	T	L		B	B	G		R	T	L		B	R	A	N	D	E	N	B	U	R	G	
43	R	T	L		P	L	U	S	R	T	L		P	L	U	S								
44	P	R	E	M	I	E	R	E	P	R	E	M	I	E	R	E								
45	S	A	T	1		R	E	G	S	A	T	1		R	E	G	I	O	N	A	L			
46	S	A	T	1		S	H		S	A	T	1		S	C	H	L	-	H	O	L	S	T	
47	S	A	T	1		H	H		S	A	T	1		H	A	M	B	U	R	G				
48	S	A	T	1		B			S	A	T	1		B	E	R	L	I	N					
49	S	A	T	1		N	D	S	S	A	T	1		N	D	.	S	A	C	H	S	E	N	
50	S	A	T	1		H	B		S	A	T	1		B	R	E	M	E	N					
51	S	A	T	1		N	R	W	S	A	T	1		N	.	R	.	W	E	S	T	F		
52	S	A	T	1		H	E	S	S	A	T	1		H	E	S	S	E	N					
53	S	A	T	1	R	H	P	F	S	A	T	1		R	H	L	D	.	P	F	A	L	Z	
54	S	A	T	1		B	W		S	A	T	1		B	A	D	-	W	U	E	R	T	T	

N°	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F		
55	S	A	T	1		B	A	Y	S	A	T		1		B	A	Y	E	R	N						
56	S	A	T	1		S	A	R	S	A	T		1		S	A	A	R	L	A	N	D				
57	S	A	T	1					S	A	T		1													
58	T	M	3						T	M	3															
59	D	W	T	V		B	L	N	D	W	-	T	V		B	E	R	L	I	N						
60	not to be used until 2002																									
61	O	F	F	.	K	A	N	.	O	F	F	E	N	E	R		K	A	N	A	L					
62	B	L	N	-	M	I	X	2	B	E	R	L	I	N	-	M	I	X	2							
63	B	L	N	-	M	I	X	1	B	E	R	L	I	N	-	M	I	X	1							

GERMANY Code range III (D41 - D7F): ARD, ZDF and private programme providers

N°	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	
1	F	E	S	T	I	V	A	L	F	E	S	T	I	V	A	L									
2	M	U	X	X					M	U	X	X													
3	E	X	T	R	A				E	X	T	R	A												
4																									
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N°	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
50																								
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57																								
58																								
59																								
60	O	N	Y	X	-	T	V		O	N	Y	X	-	T	V									
61	Q	V	C						Q	V	C	-	T	E	L	E	S	H	O	P	P	I	N	G
62	N	I	C	K		D	T		N	I	C	K	E	L	O	D	E	O	N					
63	H	O	T						H	O	M	E		O	R	D	E	R		T	V			

SWITZERLAND Code range I (4C1 - 4FE)

N°	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
1	S	F	1						S	R	G	-	S	F	1									
2	T	S	R	1					S	S	R	-	T	S	R	1								
3	T	S	I	1					S	S	R	-	T	S	I	1								
4	not to be used until 2004																							
5	not to be used until 2004																							
6	not to be used until 2007																							
7	S	F	2						S	R	G	-	S	F	2									
8	T	S	R	2					S	S	R	-	T	S	R	2								
9	T	S	I	2					S	S	R	-	T	S	I	2								
10	S	R	G	-	S	A	T		S	R	G	-	S	A	T		A	C	C	E	S	S		
11																								
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SWITZERLAND Code range II (481 - 4BF)

N°	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
1	T	E	L	E	Z	U	R	I	T	E	L	E	Z	U	E	R	I							
2	T	E	L	E	C	L	U	B	T	E	L	E	C	L	U	B								
3	Z	U	E	R	I		1		Z	U	E	R	I		1									
4	T	E	L	E	B	E	R	N	T	E	L	E	B	E	R	N								
5																								
6	S	T	A	R		T	V		S	T	A	R		T	V									
7																								

N°	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
8																								
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AUSTRIA Code range I (ACI - AFE)

N°	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	
1	O	R	F	-	F	S	1		O	R	F	-	F	S	1										
2	O	R	F	-	F	S	2		O	R	F	-	F	S	2										
3	O	R	F	-	F	S	3		O	R	F	-	F	S	3										
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11	O	R	F	-	2		B		O	R	F	-	F	S	2		B	U	R	G	E	N	L	.	
12	O	R	F	-	2		K		O	R	F	-	F	S	2		K	A	E	R	N	T	E	N	
13	O	R	F	-	2		N		O	R	F	-	F	S	2		N	I	E	D	E	R	O	E	
14	O	R	F	-	2		O		O	R	F	-	F	S	2		O	B	E	R	O	E	.		
15	O	R	F	-	2		S		O	R	F	-	F	S	2		S	A	L	Z	B	U	R	G	
16	O	R	F	-	2		S	T	O	R	F	-	F	S	2		S	T	E	I	E	R	M	.	
17	O	R	F	-	2		T		O	R	F	-	F	S	2		T	I	R	O	L				
18	O	R	F	-	2		V		O	R	F	-	F	S	2		V	O	R	A	R	L	B	.	
19	O	R	F	-	2		W		O	R	F	-	F	S	2		W	I	E	N					
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Figure B.1 gives an example for Germany: ARD bundesweit = DC1_{hex} in table B.1.

See also tables 8 and 9 in ETS 300 231 [1].

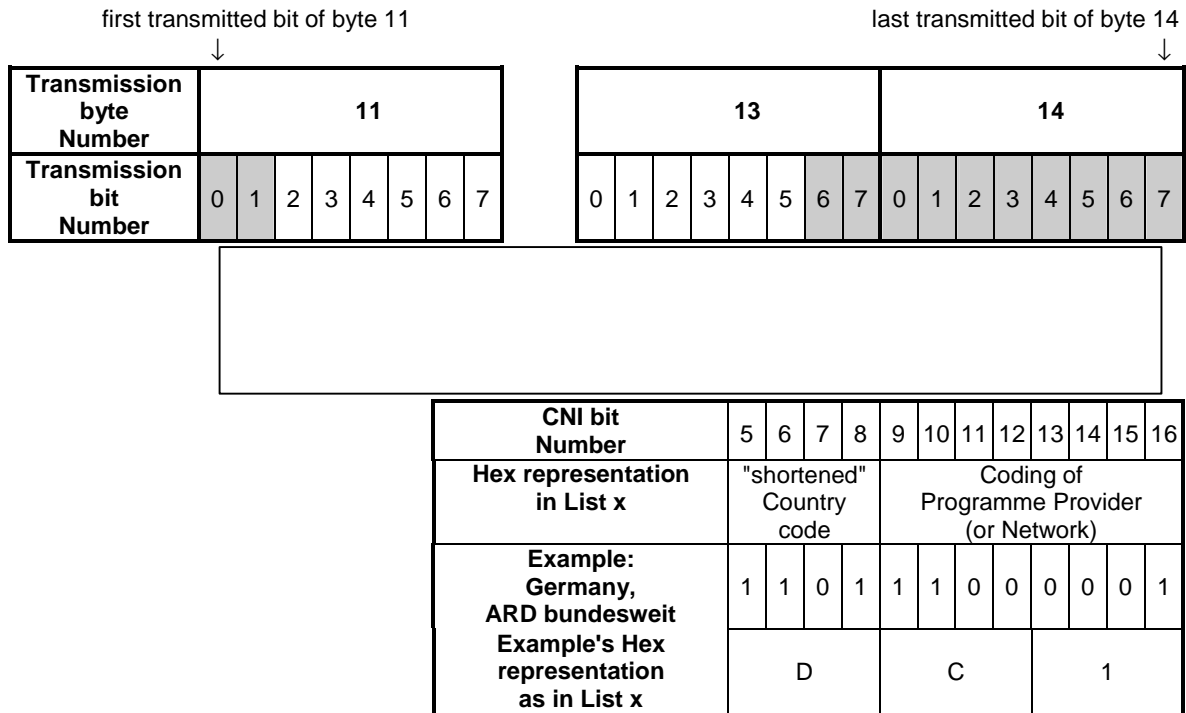


Figure B.1: CNI code format details for VPS
 (VPS = Transport of recording control commands via a dedicated television line)

History

Document history		
V1.1.1	February 1998	Publication
V1.2.1	June 1998	Publication
V1.2.2	January 1999	Publication
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